AOC Weapon System
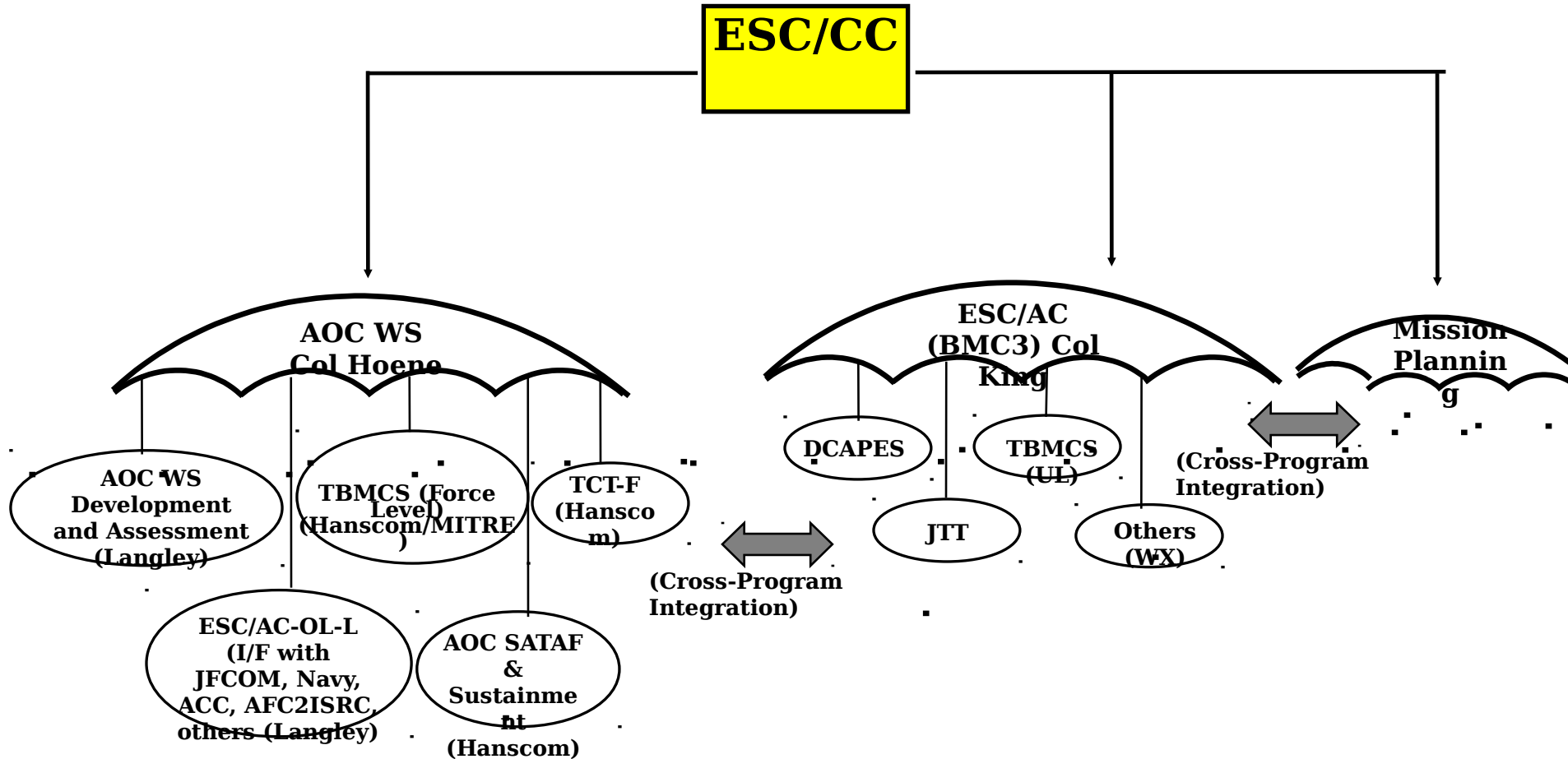# &
Lead System Integrator Overview

Col Pete Hoene
AOC WS SPD
8 Sep 03 1

Organizational Relationship

ESC/CC

AOC WS Col Hoene

AOC WS Development and Assessment (Langley)

TBMCS (Force Level) (Hanscom/MITRE)

TCT-F (Hanscom)

ESC/AC-OL-L (I/F with JFCOM, Navy, ACC, AFC2ISRC, others (Langley)

AOC SATAF & Sustainment (Hanscom)

(Cross-Program Integration)

ESC/AC (BMC3) Col King

DCAPES

TBMCS (UL)

JTT

Others (WX)

(Cross-Program Integration)

Mission Planning

(Cross-Program Integration)

2

Background
AOC – Evolution of a Weapon System

<2000

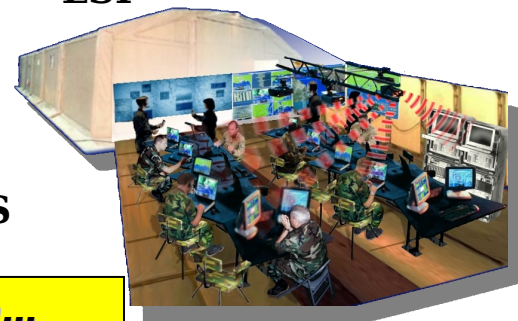- Pre- Weapon System- "A pick-up game"

2000

- **Transition period toward a Weapon System**
- **CAOC-X & SPO created**
- **OSD Contingency $$**

2001-03

- **Fielded PSAB & AUAB-"Nerve Center for OEF/OIF"**
- **Fielded Homeland Defense AOC**
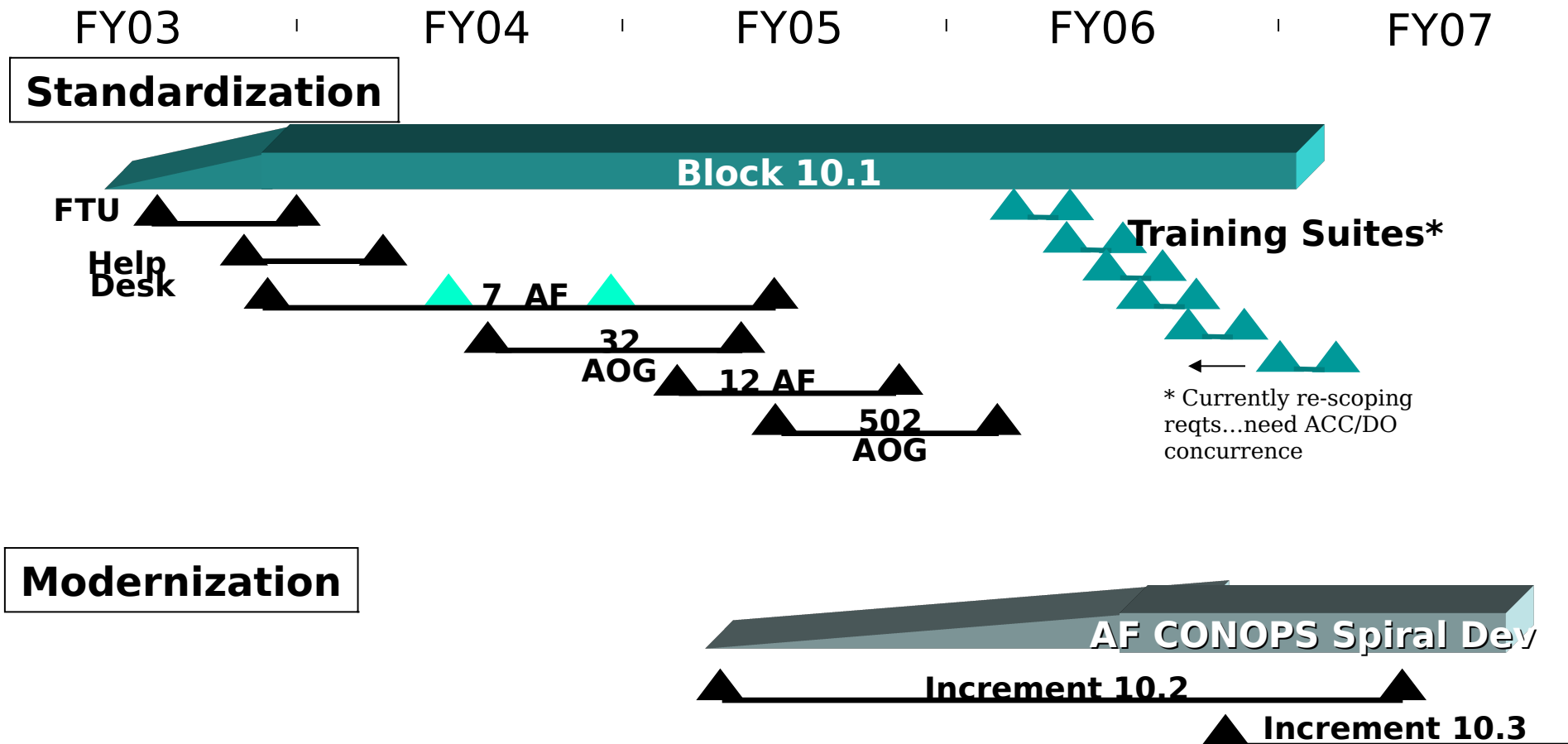- **Began fielding other WS locations: FTU, HD,**
- **OSD and Congressional Add $$**

2004 →

- **Standardization (Falconers, FTU, and HD)**
- **Air Force $$**
- **LSI**

In FY 04, AF begins to fund AOC as a Weapon System…

3

Program Strategy: IOC/FOC Acceleration
6 May 03 HAF Direction

FY03   FY04   FY05   FY06   FY07

Standardization

Block 10.1

FTU

Help
Desk

7 AF

32
AOG

12 AF

502
AOG

Training Suites*

* Currently re-scoping
reqts...need ACC/DO
concurrence

Modernization

AF CONOPS Spiral Dev

Increment 10.2

Increment 10.3

Program Strategy - Standardization Falconer and Other Key Block 10.1 Locations

32 AOG

＊AUAB

7 AF

502 AOG

Help Desk & *CAOC-X*

12 AF

C2TIG FTU

＊ OSD Contingency funded for fielding and sustainment

Locations
- ■ **Falconer AOC**
- ◆ **Training & Innovation AOC**

5
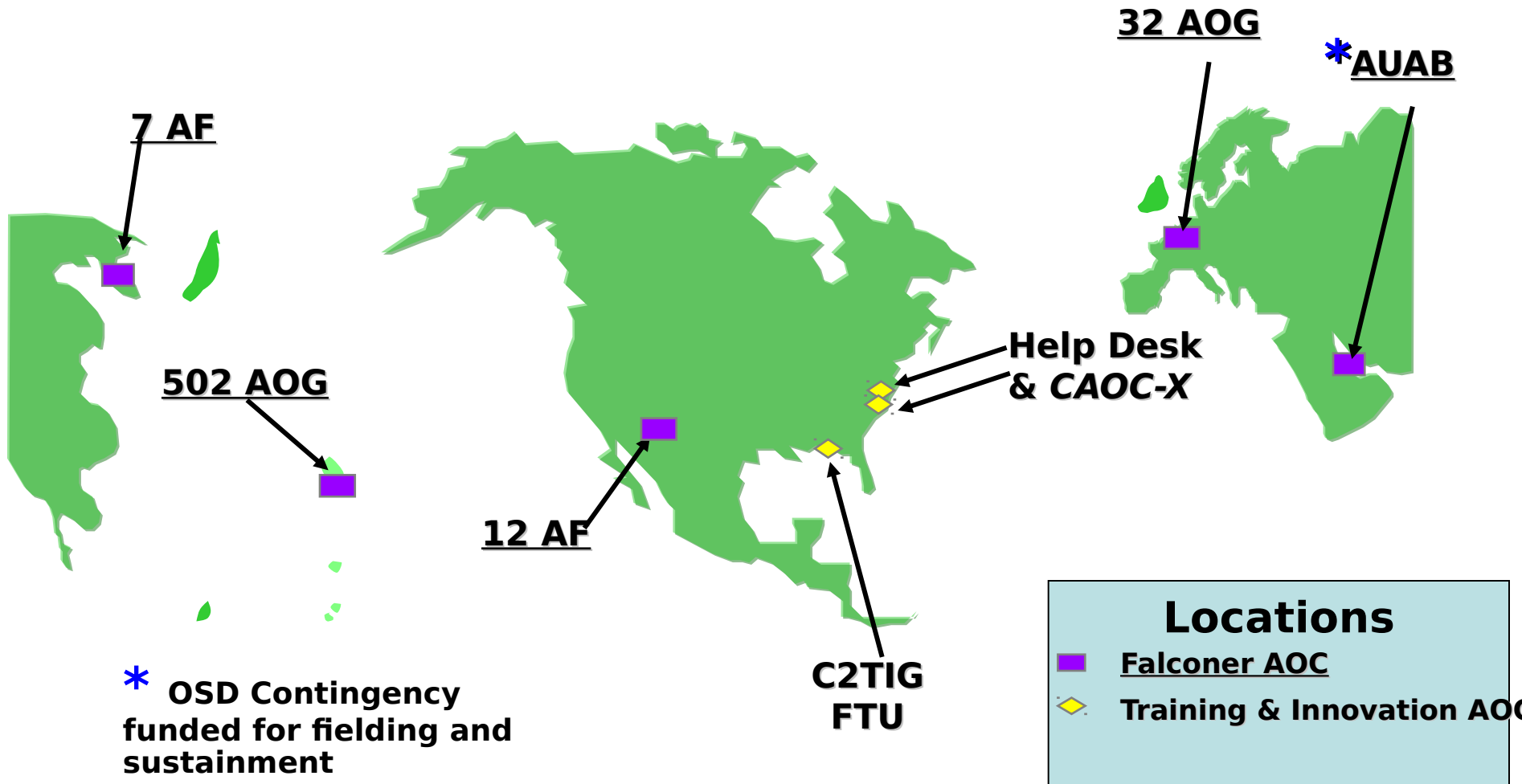
Program Strategy - Standardization Training Suite Locations

157

32 AOG

*AUAB

152

7 AF

112

710

Help Desk
& CAOC-X

502 AOG

701

12 AF

8 AF

C2TIG
FTU

Locations

Falconer AOC

Training Suites
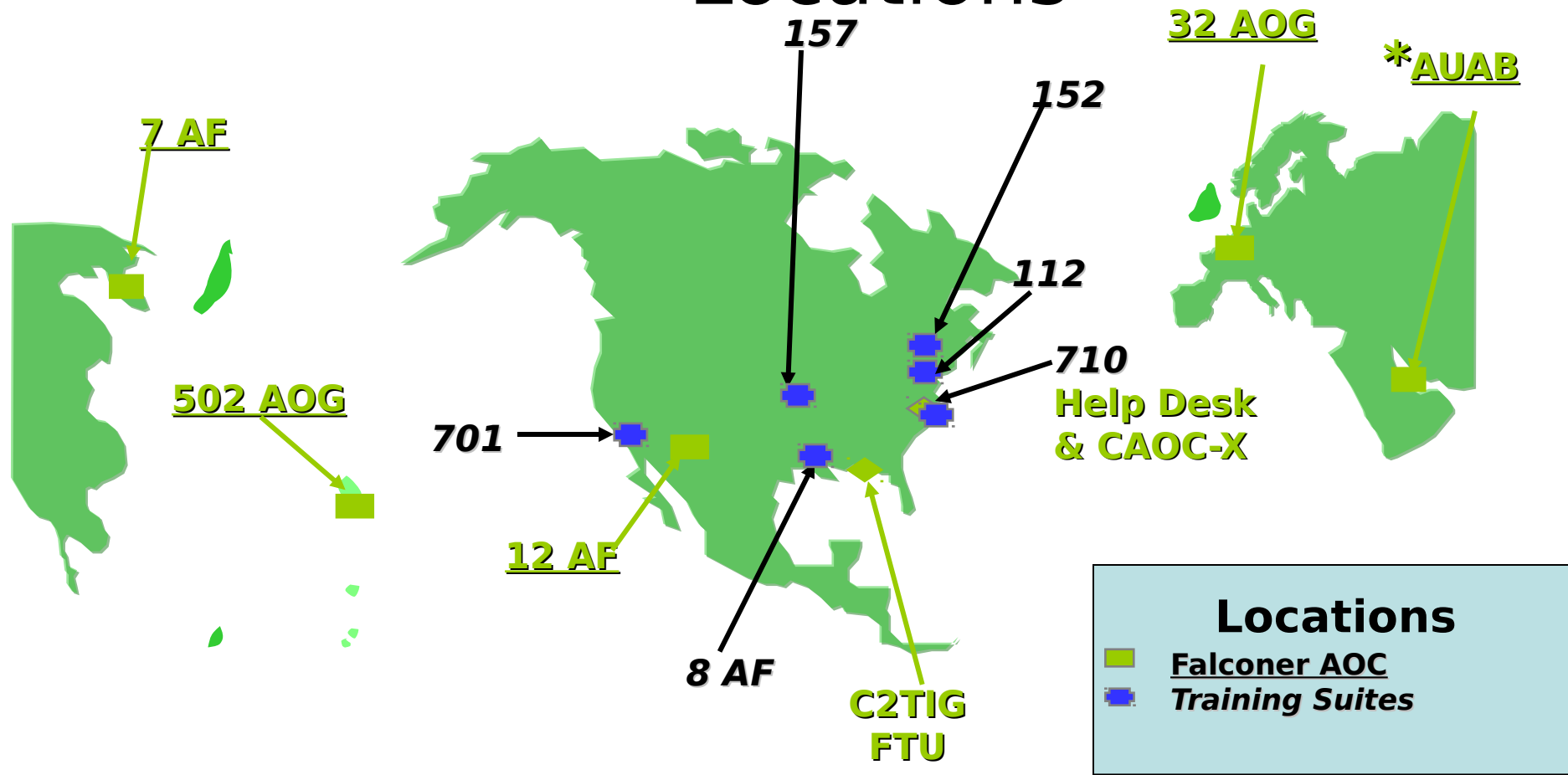
Program Strategy -
Standardization Functional AOC
Locations

ANR (11 AF)

CAOC-N

157

32 AOG

CMOC

AUAB

7 AF

152

TACC

112

CAOC-X Help Desk

CAOC-N

502 AOG

710

14 AF

701

9 AF

12 AF

CONR (1 AF)

CAOC-T

C2TIG FTU

Locations

- Falconer AOC
- *Training Suites*
- Training & Innovation AOC
- Functional AOC

Functional AOCs (x5) and CAOC-N, CAOC-T deferred until FY08+ due to funding

7
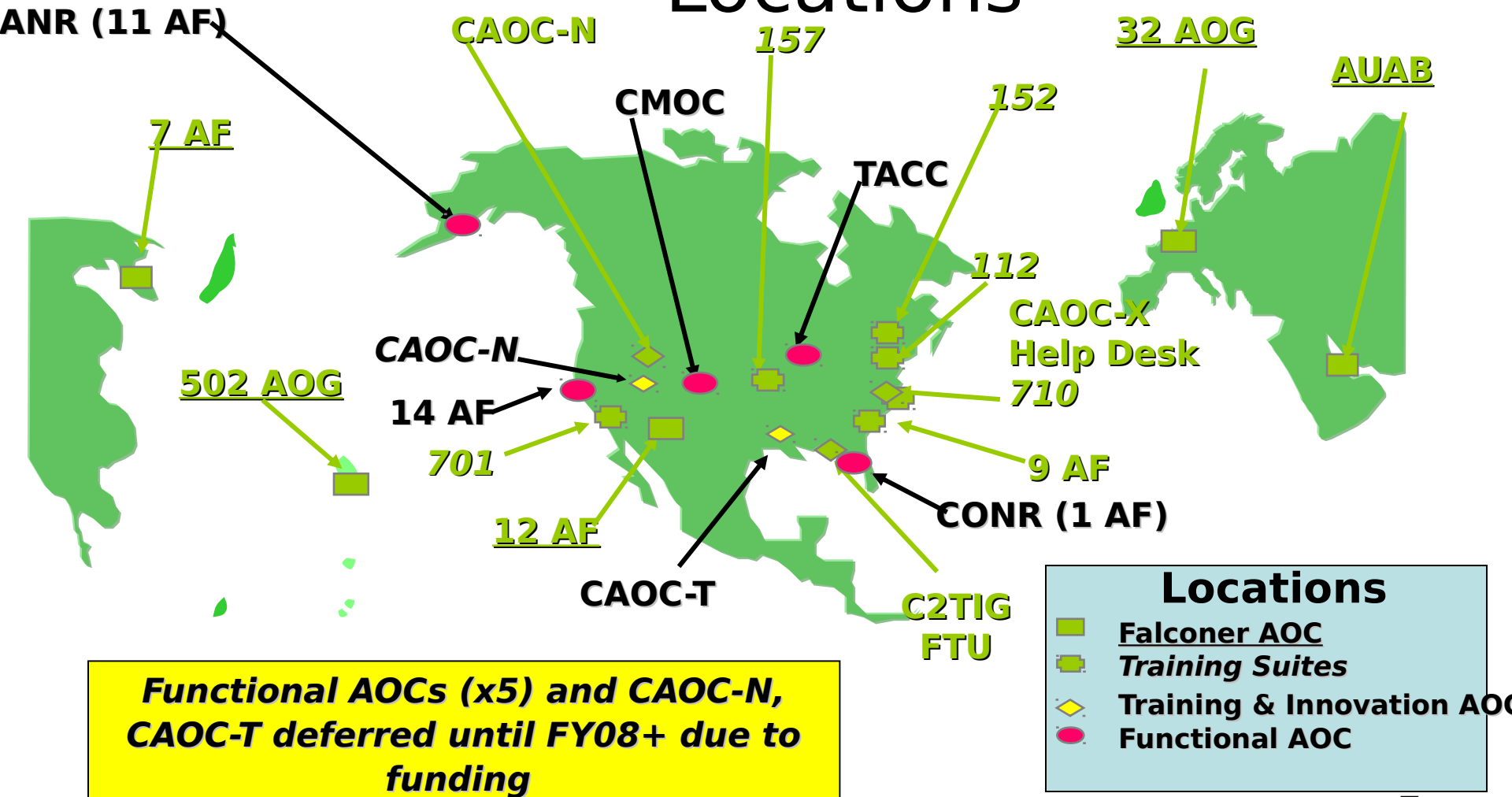
Current Program Strategy

AOC Weapon System :
Orchestrating & Integrating
efforts of others

ESC/AC
TBMCS
TCT-F
WX
Etc.

ESC/DI
GCCS
Link 16
GCSS
Etc.

ESC/SR
DCGS
ISR Mgr
Etc.

ESC/ND
SBMCS
NUWSS
Etc.

AMC
C2IPS
Battle Labs
MAAP TK
CONOPs
TTPs

AFRL
ISSE Grd
Data Wall
AFDI
JTT

ESC/JS
JSWS

US Army
ABCS Apps

Many Others
NRO-RM
Etc.

Not All Inclusive
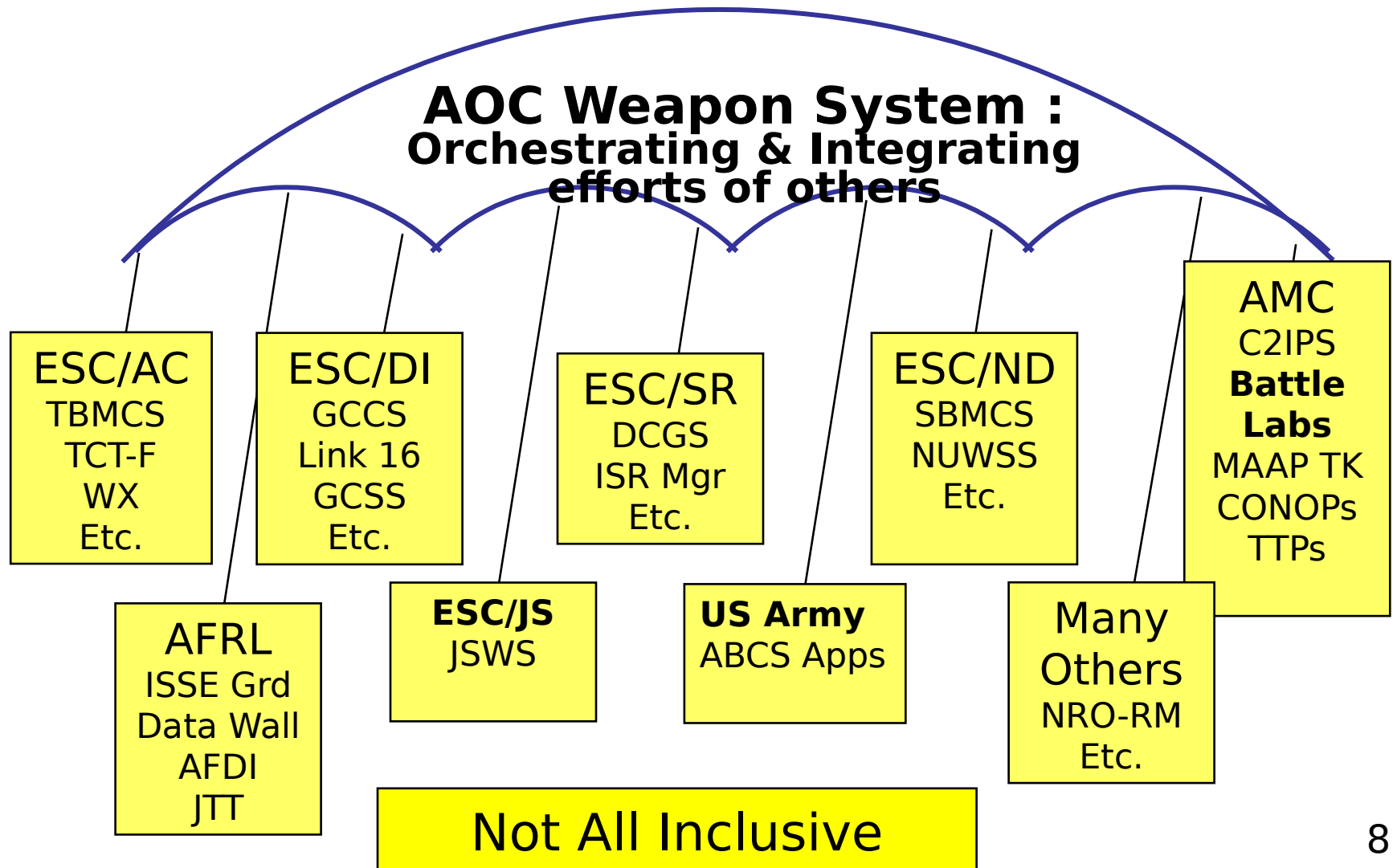
Systems Engineering Approach

- Government developed initial systems engineering products and processes
  - Captured the initial AOC WS Block 10.1 architecture
    - Cited as USAF pathfinder for C2 systems – NCES and C2ERA compliant
    - Maturing architecture to include modeling and simulation support for future acquisitions
    - Block 10.1 Engineering Plan is the "80% solution" for Falconer fieldings
  - Established systems engineering processes
    - Implemented robust configuration management, test management, requirements management processes
    - Defined OSS&E and C4ISP implementation approach
  - Using best commercial practices as guideline, developed tailored systems engineering process
  - Working to "institutionalize" these processes across AOC constituent programs
    - AOC WS TEM in Aug 03 (TBMCS, GCCS, DCGS, TCTF, FIOP key stakeholders)
    - Establishing MOA's between programs
- Much of this work will be a point of departure for the LSI

Program Strategy - Standardization Capabilities/Block 10.1 Content

Capabilities
- **Improved ATO production & dissemination**
- **Common air picture**
- **Initial Formal Training Unit (FTU) infrastructure**
- **Initial Battlespace Visual.**
- **Initial TCT Capability**
- **Initial Plans Automation**
- **Initial ISR Management**
- **Limited Coalition Interop**
- **Transportable – limited deployability**
- **Improved M2M**
- **Initial Info Services Capability**
- **Airspace management**
- **Collaboration (chat)**
- **Comm/Info management**
- **IW/Space**
- **Air Mobility**

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Block 10.1 Objective
ESC - Managed Systems in Red Italics

Mission Applications

1. Collection Management Mission Application (Navy)
2. Command and Control Information Processing System (AMC)
3. Command and Control Personal Computer (USMC)
4. Generic Area Limitation Environment Lite (NRO)
5. *Global Command and Control System (ESC/DI)*
6. Global Decision Support System (AMC)
7. Global Transportation Network (TRANSCOM)
8. Imagery Product Library (NIMA)
9. *Information Warfare Planning Capability (ESC/SR)*
10. Interim Targeting Solution (AFRL)
11. Joint Deployable Intelligence Support System (NMIC)
12. *Operational Model Exploiting GPS Accuracy (ESC/NDC)*
13. *PC Integrated Intelligence and Imagery (ESC/ACJ)*
14. Planning and Decision Aid System (NSA)
15. Personnel Recovery Mission Software (JPRA)
16. *Portable Flight Planning System (ESC/ACU)*
17. RAINDROP (COTS)
18. Requirement Management System (DIA)
19. *Space Battle Management Core System (ESC/NDC)*
20. *Theater Battle Management Core System (ESC/ACF)*
21. *Theater Weather Server (ESC/ACW)*
22. *Worldwide Origin Threat System (ESC/NDC)*
23. Weapons System Video (AF/SCM)
24. Combat Survivor/Evader Locator (SMC/CZJ)
25. *Intelligence Surveillance Reconnaissance Manager (ESC/SR)*
26. *Time Critical Targeting – F (ESC/ACF)*
27. All Source Satellite Evaluation Tool (NRO)
28. *Commanders Tactical Terminal (ESC/SR)*
29. Generic Area Limitation Environment (NRO)
30. *Global Command and Control System – I3 (ESC/DI)*
31. Powerscene (n/a)

Services

32. Air Operations Net (n/a)
33. Broadsword (AFRL)
34. *Defense Message System (SSG)*
35. *Global Broadcast System (ESC/MC)*
36. INTELINK and INTELINK-S (n/a)
37. Joint Collaboration Environment (COTS)
38. NSA Threat Warning Net (n/a)
39. *Predator Video (ESC/SRG)*
40. Purple Net (n/a)
41. *Tactical Data Information Exchange System-Broadcast (ESC/SR)*

42. *Tactical Intelligence Broadcast System (ESC/SR)**
43. *Tactical Related Applications (ESC/SR)**
44. CSP AUTODIN
45. Internet Relay Chat (COTS)
46. *Combat Track II (ESC/SRK)*
47. Hummingbird Exceed (COTS)
48. JWARN (USMC SC)
49. Global Hawk Access (ASC/RAV)
50. Geospatial Product Library (Eagle Express) (NIMA)
51. *Multi-Media Message Manager (M3 AMHS) (ESC/SR)*
52. Outlook Web Access (OWA) (COTS)
53. Sky Media

Infrastructure

54. Data wall (n/a)
55. Domain Core (n/a)
56. *Perimeter Security System (ESC/ACF)*
57. *JICO Support System (ESC/ACF)*
58. Radiant Mercury (ARFL)
59. Imagery Support Server Environment Guard (ARFL)
60. Community of Interest Network (n/a)
61. C2 Weapon System Part Task Trainer (AFC2TIG)
62. Joint Worldwide Intelligence Communications System (n/a)
63. Sensitive but Unclassified Internet Protocol Network (n/a)
64. Secure Internet Protocol Router Network (n/a)
65. Tactical Data Links in formats A, B, J (n/a)
66. *Air Defense System Integrator – TSQ-214 (ESC/DI)*
67. *Deployable Transit-case System (ESC/SRG)*
68. Joint Tactical Air Ground System (Army)
69. Precision Lightweight Global Position Receiver (n/a)
70. *Tactical Data Processing Suite (ESC/SR)**
71. *Tactical Data Terminal (ESC/SR)**
72. *Tactical Receive Suite (ESC/SR)**
73. Air Force DoDIIS Infrastructure (aka JEDI) (AFRL)
74. AOC Security Portal (n/a)
75. Access Net
76. CENTRIX-S (n/a)
77. Gigabyte Ethernet (n/a)
78. GPS Timing (n/a)
79. Network Appliance Filer System (NAS) (n/a)
80. STAMPS
81. Multi-Level Security (n/a)

* All IBS systems

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LSI Scope

- Strategic Level
  - Design and maintain architecture
- Operational Level
  - Perform systems engineering & integration functions
- Tactical Level
  - Field and sustain AOCs and Training Suites

Tentative Schedule of Events for LSI Effort

- SAE Review   31 Jul 03
- Industry Involvement   15 Aug – 30 Oct 03
- ASP   30 Oct 03
- Draft RFP   14 Nov 03
- RFP Release   9 Jan 04
- Proposals Due 9 Feb 04
- Milestone Review   22 Mar 04
- Contract Award   8 Apr 04

Possible Risks

- Aggressive, success oriented schedule
- Two "#1" priorities: LSI & fielding
- Transition from Govt-led to LSI-led fielding
- Program funding matched to content ?
  - Initiated Sufficiency Review & ICE
- ACAT designation

Summary

- PSAB and AUAB established baseline for AOC WS
  - Became the "nerve centers" for OEF & OIF
  - AUAB modular concept pathfinder for CSAF's deployable vision
- Making great progress on FTU, HD, and HTACC now
- We will execute the CSAF's direction for the AOC WS with a two-pronged approach
  - Need to update program baseline and resolve issues in FY06 POM
- Moving out on LSI effort